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GILES S. PORTER, M.D., Director

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EDITOR

# *The Importance of Milk*

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The use of milk in the human diet goes back as far as history. Throughout the ages it has continued to be a staple part of the diet. No one knows when the use of cows' and goats' milk began, but the records of human history cover more than six thousand years and there are records of cows having existed and having been milked four thousand years B. C. Inscriptions found by archaeologists in Mesopotamia constitute the oldest known reference to milk. Throughout the ages milk has been consumed by human beings. Not once, but many times, the Old Testament mentions a land "which floweth with milk and honey." In ancient Greece and Rome milk was used and classic literature is full of references to this food. Marco Polo, who traveled about the world in the thirteenth century, described the cattle of Asia as "well-sized, fat and exceedingly handsome." He wrote of koumiss, a sour milk used by the Tartars, and he also described the first known dried milk, used by the Mongols. Shakespeare made frequent reference to milk in many of his dramas. In fact, many poets throughout the centuries have sung the praises of milk.

Dairying was developed during the Middle Ages, but it was not until the eighteenth century that the breeding of cattle and the production of milk were started along scientific lines. The growth of the dairy industry has been continuous since that time but greater developments in its advancement have been made during the last twenty-five years than during all the years that preceded them. It is doubtful that any food product has been studied more carefully than has milk. Great attention has been given to the food values of this product, to the economics associated with its production, the application of scientific measures in its control and the enactment of legislation governing its production. More has been written upon subjects pertaining to milk production than upon any other single subject related to public health. The study of milk as a food, alone, has been the subject of an enormous amount of scientific research. The dairying organizations and governmental bureaus have devoted years of effort to the improvement of economics within the industry. Bacteriologists and public health workers have devoted years of study to milk as a factor in the transmission of disease. Legislators, dairymen and governmental officials have devoted great effort to the application of the results achieved by all of these interests in the provision of adequate laws for the protection of both producer and consumer.

### LEGISLATION

The laws pertaining to milk production are multitudinous and their variety is enormous. One of the most important objectives at the present time lies in the formation of a uniform code pertaining to the production and distribution of milk. Several important agencies are now working upon the development of such a code and last year the United States Public Health Service, with the approval of the Bureau of Dairy Industry of the United States Department of

Agriculture, prepared a model milk ordinance which is recommended for adoption by states and communities in order to encourage uniformity of methods of milk control practice in the United States. Some communities have enacted laws enforcing legislation which uses higher standards than those which are set forth in this model ordinance. Such communities are urged to continue the maintenance of these high standards and there is a possibility that with the development of the industry higher standards will be outlined in the model ordinance. It is not proposed, however, to make this discussion one that pertains only to the legal phases of milk control. Reference is made as to this model ordinance as an indication of the sincere effort that is being made by public health authorities to secure uniformity in laws pertaining to this important subject. It is to the interest of all, including producers and consumers, that legislation pertaining to milk control be simplified and unified to bring about such improvements. It is of economic and public health value, as well.

### FOOD VALUES

Milk has been called the elixir of life. It is certain that it is the most nearly perfect of human foods. It is our most important food and it is the one best food. It is the only single article of diet which contains practically all of the elements necessary to sustain and nourish the human body. It is rich in vitamins, the quality of its protein is specially good, its fat favors growth, and its high calcium content is of special importance. It is unquestionably the cheapest of the standard articles of diet and when used in conjunction with other foodstuffs, both animal and vegetable, it constitutes a decided factor in providing a safeguard against the so-called deficiency diseases.

History shows that certain races have been more vigorous and longer-lived than others. We know now, because of the remarkable research work that has been done during the past twenty years, that vigor and longevity are associated closely with the foods that people eat. It is a fact that those races which have had possession of many dairy animals and who have used the products of such animals in their diets have always shown the best physical development. They have attained greater size, have lived longer lives, and have been more successful in the rearing of their young. To be sure, modern man can not live upon milk alone. It is essential that other foods be included in the diet. For adults, it lacks some of the minerals and vitamins that are necessary. It may be said, however, that adults should drink at least a pint of milk every day. It is the only food for which there is no substitute, and for children it is absolutely essential. Without it, they are unable to grow into normal, healthy citizens, possessed of full body vigor and energy.

## WHY TAKE A VACATION?

Many people who heretofore have enjoyed the relaxation which comes with a vacation will forego this luxury in 1932. Many individuals are taking enforced vacations which, unfortunately, are accompanied by mental stress and, in many cases, physical suffering rather than the enjoyable relaxation that follows a year of hard labor. For individuals who have been chained to a desk for fifty weeks a change of occupation should produce most beneficial results and for those who have engaged in hard physical labor throughout the year a change of occupation for at least two weeks provides essential relief, enabling such an individual to increase his personal efficiency upon return to work.

A change of occupation, together with life in a different environment and a break in the chain of routine mental processes, is productive of great physical benefit. A complete change from the routine mode of living, visiting new scenes and engaging in new lines of activity, often refreshes the tired worker and enables him to return to his work with zest. While the physical benefits of a vacation may be very great, the mental benefits may be even of more importance. Perhaps if those individuals who are unnecessarily depressed at the present time were to change the trend of their thoughts they might receive the same benefits that may be derived through a vacation. For physical suffering there can be only physical relief but for mental depression very often the remedies unused are readily at hand. Breaking the monotony of dull thinking, in itself, might constitute a vacation.

All workers, if possible, should secure a complete change of scene and action for two weeks of the year. In 1932, many workers can not enjoy these advantages, but at all events it is possible for them to drive away the blues and to look on the brighter side. The depression will not last forever.

## CHANGES IN HEALTH OFFICERS

The city of Hawthorne has transferred the administration of its public health activities to the Los Angeles County Health Office, of which Dr. John L. Pomeroy is health officer. Dr. Leo W. Fate has been acting as city health officer of Hawthorne.

Mr. Leon Brink has been appointed city health officer of Biggs to succeed Mr. B. J. Demes.

## STUDIES IN FUMIGATION

One of the important functions of the United States Public Health Service is the prevention of introduction of exotic contagious or infectious disease. Bubonic plague is a dangerous quarantinable disease that is present in many ports of the world and is carried by rats and their ectoparasites. Its entrance must be guarded against by careful quarantine measures. An important means of preventing the introduction of bubonic plague is the fumigation of ships from infected ports to destroy rats. Studies are constantly being conducted by the service looking toward the improvement of methods of fumigation and rat destruction on ships. Recent studies of the Public Health Service relating to the fumigation of vessels have revealed some interesting facts. It has been proven beyond the possibility of a doubt that the mere release of a fumigant in an enclosed space does not result in a penetration of the gas in lethal concentration in all retired locations and closed air spaces.

Since the penetration of fumigant gases in the short exposure periods necessarily used in ship fumigation is probably dependent far more on internal air currents than on gaseous diffusion, it is apparent that to secure sufficient penetration, reasonably wide avenues for air currents must be provided. Natural penetration, however, now is not essential; instead, the gas may be injected directly into rat harborages. To do this, of course, it is first necessary to know where the rat harborages are located and only preliminary inspection can disclose them.

Young rats exhibit a distinct tendency to burrow into the material of which nests are constructed, and so may escape the fumigating gas. Not infrequently new nests are built over old ones so that there may be a considerable collection of litter under them. Sometimes nests are deeply placed in collections of boatswains' stores, particularly oakum, old rope or similar material.

The possibility of foodstuffs absorbing the fumigating gases is always a matter of interest. With the cooperation of a large tea importing company, a number of samples of tea were fumigated for two hours with liquid hydrocyanic acid gas containing 10 per cent chloropicrin, in concentrations from 2 to 8 ounces per 1000 cubic feet. When these samples were tested by three tea-experts on the following day they could not be distinguished from unfumigated samples.

It has been definitely determined that hydrocyanic acid gas in high concentrations interferes with the ripening processes of fresh fruits and causes delicate vegetables, such as lettuce, to wilt. This effect appears some days after the fumigation. In the concentration used to destroy rats on ships, however, no injurious effect has been noted. In one experiment conducted in cooperation with a large steamship company, a number of samples of various fruits and vegetables were fumigated with hydrocyanic acid gas and with sulphur (by burning) in the amounts used for ship fumigation. After fumigation and overnight airing, the samples were stored with similar unfumigated produce. Ten days later the hydrocyanic acid gas fumigated samples showed no deterioration, but those fumigated with sulphur were spotted or had turned dark, becoming a partial or total commercial loss.

## WARNING AGAINST MUSSEL POISONING RENEWED

The laboratory examinations of mussels reveal a higher toxicity in these shellfish than they have shown for many years. Eight cases of mussel poisoning have been reported to the California Department of Public Health in persons who ate these shellfish which were gathered along the coast south of San Francisco.

It is particularly dangerous this summer to eat mussels which may be gathered along the coast between Monterey County and the Klamath River and Del Norte County, exclusive of the San Francisco Bay district. On May 28 the California Board of Public Health placed a quarantine upon both razor clams and mussels within the area specified. Under the terms of this quarantine, the taking, sale, or offering for sale of these shellfish from the coastal area is prohibited. Picnic and beach parties at the seacoast are often tempted to gather mussels at low tide and to consume them on the beaches where they are gathered. To do so, particularly at the present season of the year, involves a great risk which may lead to illness and possible death. During a recent year, 102 cases of mussel poisoning, with 6 deaths, were reported in California. The quarantine referred to will terminate September 30, 1932. This date has been set arbitrarily for the reason that investigations show that mussels become less toxic upon the approach of autumn, and during the winter months the toxicity of these shellfish is negligible. They become more toxic during the spring, reaching a maximum state of toxicity about the middle of July. It is particularly dangerous to eat mussels at this season of the year. An observance of this warning may result in the prevention of many needless cases of illness.

The town or city having the greatest percentage of sound, healthy people is the most progressive and consequently the leading one in the State.

## NORTHERN CALIFORNIA PUBLIC HEALTH ASSOCIATION MEETS IN OAKLAND

The summer meeting of the Northern California Public Health Association was held in Oakland June 25. Dr. A. H. Hieronymus, City Health Officer of Oakland, acted as host. The idea of round table discussions at the meetings of the association which was inaugurated at the January meeting proved so great a success that it was repeated in Oakland. Four round table discussions were held—that on dental hygiene was led by Dr. Willard C. Fleming of San Francisco; that on communicable disease control by Dr. Allen F. Gillihan, County Health Officer of San Luis Obispo; that on health publicity by Mr. W. Ford Higby, executive secretary of the California Tuberculosis Association; and the discussion on health insurance and the public health was led by Dr. Ralph Reynolds of San Francisco. Following the round table discussions, the leader of each group presented a summary of each discussion before the meeting as a whole. Mr. W. Ford Higby reported on the meeting of the Western Branch of the American Public Health Association which was held in Denver early in June. Dr. Thomas Storey of Stanford University, president of the Northern California Public Health Association, presided. Reports were made by Dr. Walter Brown of Stanford University, secretary, and Miss Mary E. Davis of the Bureau of Child Hygiene of the California Department of Public Health, treasurer.

When we consider what a wonderfully complex mechanism the human body is, should we wonder that some of its intricate parts or systems now and then go wrong?—F. M. Pottenger.

## MORBIDITY *

### Diphtheria.

17 cases of diphtheria have been reported. Scattered throughout the State.

### Measles.

103 cases of measles have been reported. Those communities reporting 10 or more cases are as follows: Los Angeles 23, San Francisco 35.

### Scarlet Fever.

40 cases of scarlet fever have been reported, as follows: Los Angeles 14.

### Whooping Cough.

297 cases of whooping cough have been reported. Those communities reporting 10 or more cases are as follows: Oakland 21, Los Angeles County 31, Long Beach 11, Los Angeles 69, Pasadena 16, Santa Monica 13, San Diego 47.

### Small Pox.

5 cases of small pox have been reported, as follows: Los Angeles County 1, Santa Monica 1, Hawthorne 2, San Jose 1.

### Typhoid Fever.

6 cases of typhoid fever have been reported, as follows: Fresno County 2, Hanford 1, Los Angeles 1, Sacramento County 1, California 1.†

### Meningitis (Epidemic).

4 cases of epidemic meningitis have been reported, as follows: San Francisco 1, Mountain View 1, Palo Alto 1, Modesto 1.

### Poliomyelitis.

3 cases of poliomyelitis have been reported, as follows: Oakland 1, Bakersfield 1, Los Angeles 1.

### Rocky Mountain Spotted Fever.

One case of Rocky Mountain spotted fever from Alturas has been reported.

### Encephalitis (Epidemic).

2 cases of epidemic encephalitis has been reported, as follows: Kern County 1, Mountain View 1.

### Undulant Fever.

3 cases of undulant fever have been reported, as follows: Glendora 1, Montebello 1, Willow Glen 1.

### Leprosy.

One case of leprosy from Oakland has been reported.

### Tularemia.

One case of tularemia from Kern County has been reported.

### Mussel Poisoning.

19 cases of mussel poisoning have been reported, as follows: Marin County 2, Monterey County 2, San Mateo County 6, Sonoma County 9.

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* From reports received on July 11th and 12th for week ending July 9th.

† Cases charged to "California" represent patients ill before entering the State or those who contracted their illness traveling about the State throughout the incubation period of the disease. These cases are not chargeable to any one locality.

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